The IGCCCG stage was III A in 1, III B in 3 and III C in 7. The median age was 24 years (range 17–33).

Results: Ten patients were assessable for response: 3 CR, 4 PR, 2 SD and 1 PD were observed. One patient died due to brain hemorrhage (on day 10 from Carbo-PEC). Four patients underwent to surgery and two were pCRs. Six patients (54%) are still alive with a median follow up of 100 months (range 78–148). Four patients progressed after chemotherapy and died from disease at 5, 10, 32 and 34 months from the date of the start of the first chemotherapy cycle. Event free survival rates (defined as time to disease progression, relapse or death, whatever the cause) were measured from the date of the start of the first chemotherapy cycle at 1 and 3 years and resulted 72% and 54%, respectively.

Conclusions: Our experience showed that early intensification HDCT is an effective and tolerable regimen in patients relapsing after a standard first line chemotherapy. Further clinical trials of HDCT should analyze predictive factors for treatment outcome.

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TAMOXIFEN IN THE TREATMENT OF RECURRENT, ADVANCED BORDER LINE OVARIAN CANCER: A SINGLE CENTRE EXPERIENCE

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Background: Treatment of borderline ovarian tumours is based on surgery while chemotherapy is poorly effective. Advance border line ovarian tumours are rare nad response to chemotherapy is poor. Border line cancer frequently express estrogen receptors and few cases responding to hormonal treatments have been reported.

Methods: We describe three cases of recurrent serous disease out of 42 newly diagnosed border line cancer observed at our institution in 5 years. In all three cases estrogen receptor was determined by immunohistochemistry and was found positive. Patients were treated with 20 mg/daily tamoxifen until progression.

Results: In no case we observed a complete remission, but in all a clinical and serological Ca 125 response was observed. In one patient a control was maintained for 3 years. In another, after progression, a new response was obtained doubling tamoxifen dose. Two of 3 patients are alive continuing tamoxifen and in response from 10 and 15 months, respectively.

Conclusions: Our data support the hypothesis that hormonal treatment represents an option for recurrent borderline ovarian tumours.

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REDISCOVERING IMMUNOTHERAPY IN COMBINATION WITH MOLECULARLY TARGETED AGENTS IN RENAL CELL CANCER

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Renal cell carcinoma accounts for approximately 2–3% of all malignancies and includes different histological subtypes.

Prognosis of metastatic disease (mRCC) still remains unfavourable and patients survival depends on well known prognostic factors, as defined by the MSKCC score. Overall, the median survival in advanced disease is about 14 months.

Cytokine-based immunotherapy with interferon-alfa (IFN-alfa) and interleukin-2 (IL-2), alone or in association, is considered the standard care for mRCC.

From 2005, in the targeted therapies era, some significant clinical trials showed the promising activity and efficacy of new drugs like Sorafenib, Sunitinib, Temsirolimus, Everolimus and Bevacizumab. These biomolecular agents have improved disease control in patients with mRCC.

In particular, Sorafenib is an orally available multikinase inhibitor that demonstrated, as single agent, an improvement of progression-free survival in cytokine-refractory mRCC.

Some clinical trials explored the efficacy and safety of the association between biomolecular agents such as Sorafenib itself, Bevacizumab or Temsirolimus and immunotherapy with IFN-alfa and IL-2.

The rationale of bio-immunotherapy of mRCC with targeted agents in combination with cytokines is represented by their different mechanisms of action and possible synergistic effects in blocking cancer growth.

The ROSORC trial is a phase II italian study of first line therapy with Sorafenib *plus* low dose IL-2 administered subcutaneously versus Sorafenib alone in unresectable and/or metastatic RCC. The accrual target is set at 128 patients and the main endpoints are the progression-free survival, the overall survival, the response rate and the safety in both arms of therapy.

In our experience the association between cytokines and targeted therapies is feasible and we purpose to choose this combination regimen in the upfront treatment of particular subgroups of patients, according to risk stratification and objectives of clinicians.

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IMAGE GUIDED RADIATION THERAPY (IGRT) IN THE TREATMENT PLANNING OF PROSTATE CANCER: ACCURACY AND PRECISION OF RADIATION THERAPY THROUGH MODERN IMAGING TECNOLOGIES

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The objective principal of the radiotherapy it is the control local or locoregional to curative purpose with saving of the normal tissues. In the last decades the possibility to have available software able to integrate diagnostic data coming from images of Computerized Tomography (CT), of Magnetic Resonance Imaging (MRI) and nuclear medicine (NM) with algorithms of calculation of doses able to calculate the dose in more dimensions have allowed to realise the radiotherapy conformal (3D-CRT) to the purpose to realise of radiant treatments more and more individualised and with smaller late effects.

Advances in the delivery of radiotherapy treatment such as the 3D-CRT and Intensity Modulated Radiation Therapy (IMRT)

has provided to increased our ability to delivery radiation doses that conform more to the tumour volume avoiding geometrical uncertainties. The variations in the position of the target volume may occur daily during treatment. in the treatment of prostate cancer. The obtainable clinical benefits through the use of highly conformal treatments cannot be gotten if the internal target volume motion are quantified and if necessary compensated. Since, radiation dose escalation in prostate cancer may lead to an increase of the disease control, the Image Guided Radiation Therapy (IGRT) may be of great utility in to define target volume, the organ motion and the in to decrease the geographical miss. The assessment of IGRT may add information in the treatment position and real time monitoring during treatment delivery.

The IGRT allows to immediately visualise before the administration of the fraction of dose the anatomy of the patient to the purpose to subsequently conform the dose to the volume target.

For this reason, considerable research have been made on the methods of using three-dimensional images of patient on the planning, delivery and verify of radiotherapy treatment. The IGRT includes various technologies as ultrasound, implanted fiducial markers, in-room diagnostic CT or kilovoltage X-rays, megavoltage cone-beam computed tomography (MV CBCT) or kilovoltage cone beam computed tomography (kV CBCT). In conclusion the use of the new imaging techniques he will be able in a next future to improve the results in the care of the prostate cancer and the relationship efficacy and toxicity in the radiotherapy treatment.

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TREATMENT IN METASTATIC PROSTATE CANCER WITH HORMONE REFRACTORY

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Despite the effectiveness of initial hormonal therapy, metastatic cancer prostate is an incurable disease, with median survival of 6–9 months after development of androgen insensitivity.

The combination of mitoxantrone and prednisone has been approved for use in patients with hormone-refractory prostate cancer. The combination of docetaxel and prednisone in two study recently have demonstrated for the first time a chemotherapy could extend survival in the patients.

The purpose of the our study was to define the efficacy and safety of scheme therapeutic, repeat every 28 d, in cancer prostate hormone-refractory.

The treatment includes:

- Megestrol acetate 160 mg/die per os;
- Docetaxel 40 mg/m^2 e.v. days 1,16;
- Novantrone 8 mg/m^2 e.v (infusion continual from 2 day to 15 day);
- Prednisone 5 mg os die alternated.

Biological efficacy was defined as a decline of >50% from baseline levels PSA.

We treated 23 patients,from February 2006 to february 2008,with metastatic prostate cancer, median 72 years, range 55–74 years. After 2 months the patients with tumor response or stable received 2,4,... another months of chemotherapy until disease progression or toxicity or patient's refusal, nevertheless forever <13 cycle.

The results are very encouraging: decrease in serum PSA $\geqslant$ 50% in 16 patients/23, increase of hemoglobin in 12 patients/23,improvement symptomatic in 17 patients/23.

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